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Amendments to the Claims

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Canceled)
7. (Canceled)
8. (Canceled)
9. (Canceled)
10. (Canceled)
11. (Canceled)
12. (Currently amended) A method for cleaning a vessel, the vessel having a wall and an access conduit initially sealed by a first valve, the method comprising:
 - inserting an insertion portion of a combustion conduit into the access conduit, the combustion conduit having a second valve;
 - forming a seal between the access conduit and the combustion conduit;
 - opening the first valve;
 - opening the second valve;

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passing combustion gasses through the combustion conduit and second valve into the vessel; and

withdrawing the insertion portion from the access conduit.

13. (Original) The method of claim 12 wherein:
the opening of the first valve occurs during an intermediate stage of said insertion.
14. (Original) The method of claim 12 further comprising:
forming a seal between the combustion conduit and the access conduit.
15. (Original) The method of claim 14 wherein:
the forming of the seal occurs before the opening of the first valve.
16. (Original) The method of claim 12 wherein:
the opening of one of the first and second valves comprises a pivotal movement of a gate of said one valve; and
the opening of the other valve is manual.
17. (Canceled)
18. (Currently amended) The method of claim ~~17~~ 12 wherein:
the second valve is between a main portion of the combustion conduit and said insertion portion.
19. (Previously presented) The method of claim 12 further comprising:
with the second valve open, introducing a fuel/oxidizer charge to the combustion conduit upstream of the second valve.
20. (Previously presented) The method of claim 19 wherein:
said fuel/oxidizer charge comprises a fuel and an oxidizer mixed at or subsequent to

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introduction to the combustion conduit.

21. (Previously presented) The method of claim 12 further comprising:
with the second valve open, initiating combustion of a fuel/oxidizer charge in the combustion conduit.
22. (Previously presented) The method of claim 12 further comprising:
causing a deflagration-to-detonation transition upstream of the second valve.
23. (Previously presented) The method of claim 12 wherein:
the second valve is formed at an upstream end of the insertion portion and, after the insertion, one or more upstream conduit sections are installed to the insertion portion.
24. (Previously presented) The method of claim 23 wherein:
a sliding gate of the second valve is initially secured to a downstream body half of the second valve positioned to block the insertion portion during the insertion;
after the insertion, an upstream body half of the second valve is secured to the downstream body half; and
the gate is freed to allow said opening of the second valve.
25. (Previously presented) The method of claim 24 wherein the insertion is accomplished by tightening nuts on threaded rods extending from the downstream body half.
26. (New) A method for cleaning a vessel, the vessel having a wall and an access conduit initially sealed by a first valve, the method comprising:
inserting an insertion portion of a combustion conduit into the access conduit, the combustion conduit having a second valve;
forming a seal between the access conduit and the combustion conduit;
opening the first valve;
opening the second valve;

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passing combustion gasses through the combustion conduit into the vessel; and
withdrawing the insertion portion from the access conduit

wherein:

the second valve is formed at an upstream end of the insertion portion and, after the
insertion, one or more upstream conduit sections are installed to the insertion portion;

a sliding gate of the second valve is initially secured to a downstream body half of the
second valve positioned to block the insertion portion during the insertion;

after the insertion, an upstream body half of the second valve is secured to the
downstream body half; and

the gate is freed to allow said opening of the second valve.

27. (New) The method of claim 26 wherein the insertion is accomplished by tightening nuts
on threaded rods extending from the downstream body half.